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Appl. No. 10/589,532
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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.(Original) A device for measuring a level of a clinically relevant analyte in a fluid, including:

a flow path for conducting said fluid through the device;

a predetermined amount of said analyte arranged on said flow path such that the analyte mixes with fluid that passes it to form a calibration sample of the fluid;

detector means arranged on said flow path for detecting respective analyte levels in an unadulterated sample of the fluid and in the calibration sample.

2.(Original) A device according to claim 1 wherein said predetermined amount of analyte is arranged as part of the detector means.

3.(Currently Amended) A device according to ~~either~~ claim 1 wherein said detector means includes at least two detectors, a first of said detectors being arranged to detect the analyte level in the unadulterated sample, and a second of said detectors being arranged downstream of said predetermined amount of analyte to detect the analyte level in the calibration sample.

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4.(Original) A device according to claim 3 wherein said first and said second detectors are arranged in series on the flow path, and said predetermined amount of analyte is located between said first and second detectors.

5.(Original) A device according to claim 3 wherein said flow path divides into at least two branches, said first detector being arranged on a first of said branches and the predetermined amount of analyte and said second detector being arranged on a second of said branches.

6.(Original) A device according to claim 3 wherein there are two separate flow paths, said first detector being arranged on a first of said flow paths and the predetermined amount of analyte and said second detector being arranged on a second of said flow paths.

7.(Previously Presented) A device according to claim 1 wherein said flow path divides into at least two branches, said predetermined amount of analyte being located on one of said branches, and said branches rejoin upstream of the detector means and further wherein said branches are adapted so that fluid takes longer to flow through a first of said branches to the detector means than through a second of said branches.

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8.(Original) A device according to claim 7 wherein the first and second branches are of different lengths.

9.(Original) A device according to claim 7 wherein the first and second branches have different flow rates.

10.(Previously Presented) A device according to claim 7 wherein said predetermined amount of analyte is located said first branch.

11.(Previously Presented) A device according to claim 7 wherein said detector means is a single detector.

12.(Previously Presented) A device according to claim 1 including a processor which is adapted to produce an analyte level reading by adjusting the analyte level detected in the unadulterated sample according to the analyte level detected in said calibration sample.

13.(Previously Presented) A device according to claim 1 further including a second predetermined amount of said analyte arranged on said flow path such that it mixes with fluid that passes it to form a second calibration sample, and wherein said detector

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means is arranged on said flow path so as to detect an analyte level in an unadulterated sample, and in the calibration samples.

14.(Original) A device according to claim 13 wherein the predetermined amounts of said analyte are different amounts.

15.-17. (Cancelled).

18.(Currently Amended) A device ~~according to claim 15~~ for measuring a level of a clinically relevant analyte in a fluid, the device including:

a flow path for conducting said fluid through the device;

a predetermined amount of a calibration analyte arranged on said flow path such that the calibration analyte mixes with fluid that passes it to form a calibration sample, the calibration analyte being a different species to said clinically relevant analyte;

first detector means arranged on said flow path for detecting a level of said clinically relevant analyte in the calibration sample; and

second detector means arranged on said flow path for detecting a level of said calibration analyte in the calibration sample, wherein the first and second detector means are arranged on a single channel of the flow path.

19.(Original) A device according to claim 18 wherein the first and second detector means are arranged at the same location on the flow path.

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20.(Previously Presented) A device according to claim 1 wherein said clinically relevant analyte is glucose.

21.(Previously Presented) A device according to claim 1 wherein said detector means includes at least one enzyme electrode.

22.(Previously Presently) A device according to claim 1 further including a processor for processing signals from said detector means to produce an analyte level reading.

23.(Original) A device according to claim 22 further including a sensor connected to said processor, wherein the processor also processes signals from said sensor to produce an analyte level reading.

24.(Previously Presented) A device according to claim 1 wherein said flow path operates to draw the fluid through the device by capillary action.

25.(Original) A method for testing, in a portable device, levels of clinically relevant analytes in a fluid including the steps of:

mixing a sample of the fluid with a known amount of said analyte to form a calibration sample;

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measuring the analyte level in an unadulterated sample of the fluid;
measuring the analyte level in said calibration sample; and
adjusting the analyte level measured in said unadulterated sample using the
analyte level measured in said calibration sample.

26.(Original) A method according to claim 25 further including the step of generating an
analyte level reading from said adjusted analyte level, wherein said step of adjusting is
carried out on the unprocessed measurement of the analyte level in the unadulterated
sample.

27.(Previously Presented) A method according to claim 25 further including the step of
generating an analyte level reading from the measurement of the analyte level in the
unadulterated sample, wherein said step of adjusting is carried out on the analyte level
reading.

28.(Previously Presented) A method according to claim 26 wherein the analyte level
reading is generated by applying a calibration curve to the analyte level.

29.(Previously Presented) A method according to claim 25 wherein in the adjusting
step, the expression used to calculate an adjusted analyte concentration is:

$$GI_{adj} = (GI_{un} \times Q) / (GI_{cal} - GI_{un})$$

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where GI_{adj} , GI_{un} and GI_{cal} are respectively the adjusted analyte concentration, the analyte concentration measured in the unadulterated sample of the fluid, and the analyte concentration measured in the calibration sample and Q is the known increase in concentration of analyte in the calibration sample resulting from the addition of a known amount of analyte to a known volume of sample.

30.(Previously Presented) A method according to claim 25 further including the steps of mixing a sample of the fluid with a second known amount of analyte to form a second calibration sample, and measuring the analyte level in said second calibration sample, wherein the step of adjusting uses the analyte levels measured in both calibration samples.

31.(Original) A method according to claim 30 wherein the sample of fluid which is mixed with the second known amount of analyte is of a known volume.

32.-34(Cancelled).

35.(Previously Presented) A method according to claim 25 wherein the clinically relevant analyte is glucose.

36.(Previously Presented) A method according to claim 25 wherein the fluid is blood.

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37.(Previously Presented) A method according to claim 25 wherein said steps of measuring involve measuring a concentration of analyte.

38.(Previously Presented) A method according to claim 25 wherein in said step of mixing, a known volume of fluid is mixed with the known amount of said analyte.

39.(Previously Presented) A method according to claim 25 further including the step of introducing said fluid to a flow path, and wherein said fluid flows along the flow path whilst said steps of measuring and mixing are carried out.

40.(Previously Presented) A method according to claim 25 wherein said step of adjusting includes making corrections based on one or more external factors.

41.(Original) A method according to claim 40 wherein at least one of said external factors is the ambient temperature.